ACC NR: AT7004021 (N) SOURCE CODE: UR/3239/66/000/002/0160/0166

AUTHOR: Safonov, A. I.; Bos'ko, V. A.

ORG: None

TITLE: Ultrasonic method for checking the quality of joints in marine structural elements welded from aluminum and aluminum-magnesium alloys

SOURCE: Nikolayev. Korablestroitel'nyy institut. Sudostroyeniye i morskiye sooruzheniya, no. 2, 1966. Sudostroyeniye (Shipbuilding), 160-166

TOPIC TAGS: aluminum welding, aluminum base alloy, magnesium containing alloy, welding inspection, ultrasonic flaw detector

ABSTRACT: Data are given from tests of UDM-1M and UDM-2 ultrasonic echo-pulse flaw detectors used for welding inspection on operating frequencies of 2.5, 3.5 and 5 Mc. Analysis of the state of welding and the quality of seams made from aluminum-magnesium alloys showed the feasibility of using ultrasonic flaw detection for joints 5-40 mm thick. The most dangerous defects from the standpoint of structural strength--incomplete fusion and accumulation of gas and slag inclusions--are reliably detected by the ultrasonic method. Detection of tungsten inclusions is more difficult. In practical application of the ultrasonic quality control method, a string of closely packed gas and slag inclusions may be treated as an incomplete fusion flaw. Experimental studies showed that probe heads with angles of inclination from 30 to 60° may be used

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ACC NR: AT7004021

for welding inspection on joints 5-40 mm thick and that angles up to 63° are possible under certain conditions. The ultrasonic method is the most effective of all nondestructive procedures for quality control applicable to welded joints made from aluminum and aluminum-magnesium alloys. The productivity of this method is several times higher than either gamma or x-ray flaw detection. There are no differences between the method used for ultrasonic inspection of structures welded from aluminum and that used for aluminum alloy parts. Probes with angles of inclination below 60° are recommended for checking aluminum alloy joints (steel below 56°) to give the necessary entrance angles. Experimental studies have shown that ultrasonic welding inspection may be used as an independent procedure in manufacturing marine structural elements made from aluminum-magnesium alloys. Orig. art. has: 4 figures, 3 tables, 6 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 005

Card 2/2

SAFONOV, A.I., inzhener.

Changes in the structural elements of welded seams. Sudostroenie 22 no.8:19-22 Ag '56. (MLRA 9:10)

(Ships, Iron and steel--Welding)

SAFONOV, A.I.

SAFONOV, A.I., inzh.

Using automatic welding for ship hull vertical assembly butt joints. Sudostroenie 23 no.11:31-34 N '57. (MIRA 11:1)

(Hulls (Naval architecture)--Welding)

DOVGOPOLYUK, I.A., inzh.; SAFONOV, A.I., inzh.

Using minerals from southern deposits for electrode coatings.
Svar.proizv. no.8:30-31 Ag '60. (MIRA 13:7)
(Electrodes)

SAFONOV, A.I., inzh.; GORLANOV, N.N., inzh.

Using a mixture of propane and butane in gas-flame machining of metals. Sudostroenie 26 no.3(209):52-54 Mr '60.
(MIRA 14:11)

(Gas welding & cutting)

SAMSONOV, Vladimir Georgiyevich, inzh.; KHARAKHASH, Viktor Georgiyevich, inzh.; MIRONENKO, Nikolay Ivanovich, inzh.; SAFONOV, Aleksandr Ivanovich, inzh.; PESIKOV, Ruvim Semenovich, inzh.; ALEKSEYEV, Nikolay Nikolayevich, inzh.; KOKHNO, Yu.A., inzh., retsenzent

[Anticorrosive plastic coatings] Protivokorrozionnye plastmassovye pokrytiia. Kiev, Tekhnika, 1965. 89 p. (MIRA 18:12)

S/032/60/026/011/014/035
B015/B066

AUTHORS: Petrov, B. M., Safonov, A. I., and Zaslavskiy, F. Ya.

TITLE: Ultrasonic Quality Control 14 of Weld Seams on Frame Constructions

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 11, pp. 1241-1244

TEXT: In the plant of the authors and in cooperation with the branch of the TsNIITS and the co-workers S. A. Anufriyeva, E. V. Kharitonov, V. G. Shilov, and N. Ya. Sereda a method was devised for ultrasonic control and qualitative classification of weld seams. The classification is made by dividing the defects into three groups (three marks) according to the standards of the X-ray and gamma-radiographic flaw detection, with the quality being established from the result of the defect control of the workpiece. A УЗДН-7Н (UZDN-7N) device was used to devise the method and to fix the standard series and the gamma-radiograms of the defect were compared with the ultrasonic diagrams of the same defect. Preliminary

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Ultrasonic Quality Control of Weld Seams
on Frame Constructions

S/032/60/026/011/014/035
B015/B066

inspections disclosed that the accuracy of the ultrasonic method in detecting defects such as spots in the weld seam which are not welded through, longitudinal and transverse cracks and fine inclusions of slag, is considerably higher than in the gamma-radiography, and frequently also higher than in the X-ray diffraction pattern. In cases such as up to 10 mm long defects which are not welded through, and large slag inclusions, the ultrasonic method gives a poorer classification and thus a worse differentiation between the marks 2 and 3 of the given qualification. Some indications are offered for a more exact flaw detection by means of the ultrasonic method. In principle, the quality rating is classified as follows: Mark 3 - no internal defects, or only single point inclusions, less than four per a length of 400 mm; mark 2 - neither cracks nor points not welded through or honeycombs, but a) some defects may occur which do not extend into the seam, but not more than 8 per 400 mm, and b) series of defects over a length of 30 mm per 400 mm at the most, the length of all defective spots being at least 10% of the total length to be tested; and mark 1 - defects which exceed those of mark 2 with respect to size, character and quality. There are 3 figures and 1 table.

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Ultrasonic Quality Control of Weld Seams on Frame Constructions

S/032/60/026/011/014/035
B015/B066

ASSOCIATION: Nikolayevskiy zavod im. I. I. Nosenko (Nikolayev Plant imeni I. I. Nosenko)

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S/135/61/000/012/006/008
A006/A101

AUTHORS: Volkov, K. N., Safonov, A. I., Semenov, L. N., Engineers

TITLE: On the problem of raising the mechanization level of welding operations in shipbuilding

PERIODICAL: Svarochnoye proizvodstvo, no. 12, 1961, 22-24

TEXT: Since 1955 the rate of increase of mechanized welding operations in shipbuilding has dropped from 7 - 8% in 1948 - 1953 to 0.5 - 1.5% per year. To predetermine an increase of mechanization, it has become imperative to analyze the distribution of weld joints depending on their length, the spatial location of the seam during the welding process and the welding spot. The authors tabulated these parameters for ship hulls and bottoms. The data compiled are characteristic of distributing the extent of welding operations on the hull and the degree of their mechanization. They also make it possible to indicate the basic trends of further mechanization in welding operations. On the basis of these data the following conclusions are drawn: It is not possible to assure the prescribed level of mechanization by passing over to submerged arc welding of all joints to be welded in the lower position, i.e., 80% of the total amount of

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S/135/61/000/012/006/008
A006/A101

On the problem of raising the mechanization ...

welding operations on the hull. The use of submerged arc welding for joints produced in the vertical and overhead position, is not considered to be expedient in shipbuilding, since up to 1 m long T joints and over 3 m butt joints are the standard types of welds in vertical seams. Up to 1 m long T joints and over 3 m long butt welds are the standard types for overhead seams. A further mechanization of welding operations should be achieved by introducing methods which assure the efficient welding of short joints in any spatial position. To attain the prescribed 85% mechanization of welding processes, in respect to labor consumption, not less than 92% of all welding operations of hull structures must be performed by mechanized means. Mechanization should be brought about both at the shops and at the dockyard. The existing technical means for welding in CO_2 will raise the extent of mechanization at all stages of shipbuilding. There are 2 tables and 4 figures.

S/135/61/000/012/006/008
A006/A101

On the problem of raising the mechanization ...

Table 2:

Spatial Положение шва в пространстве position of joint	Work place Место выполнения работ	Type Тип шва Joint	Specific value of weld joints in the total amount of welding operations on the hull in %, at a seam length in m									
			up to до 1		fm 1 to 3 от 1 до 3		[illegible]		[illegible]		total per ship Всего по судну	
			м	р	м	р	м	р	м	р	м	р
Lower Нижнее	Manufacture of sections При изготовлении секций	T Тавровое	1,92	3,[illegible]	0,[illegible]	0,[illegible]	2,[illegible]	0,13	[illegible]	1,[illegible]	[illegible]	0,0
		butt Стыковое	0	7,0	0,10	0,[illegible]	0,13	0,15	18,[illegible]	[illegible]	[illegible]	2,0
	Dockyard На стапеле	T Тавровое	0,11	0,[illegible]	0,[illegible]	[illegible]	0,13	0,31	[illegible]	0,[illegible]	2,[illegible]	2,07
		butt Стыковое	0,[illegible]	0,20	0,[illegible]	0,11	0,[illegible]	0,[illegible]	[illegible]	0,[illegible]	3,30	0,[illegible]
Vertical Вертикальное	Manufacture of sections При изготовлении секций	T Тавровое	0	0,[illegible]	0	0,27	0	0,1	—	—	0	0,33
		butt Стыковое	0	0,77	0	0,13	—	—	—	—	0	0,9
	Dockyard На стапеле	T Тавровое	0	1,12	0	0,[illegible]	0	0,3	0	1,13	0	3,01
		butt Стыковое	0	0,[illegible]	0	0,51	0	0,35	0	1,0	0	3,57
Overhead Потолочное	Manufacture of sections При изготовлении секций	T Тавровое	0	0,43	0	0,08	—	—	—	—	0	0,[illegible]
		butt Стыковое	—	—	—	—	—	—	—	—	—	—
	Dockyard На стапеле	T Тавровое	0	1,11	0,	0,19	0	0,[illegible]	0	1,[illegible]	0	2,58
		butt Стыковое	0	0,24	0	0,06	0	0,[illegible]	0	1,30	0	1,[illegible]
Horizontal Горизонтальное	Manufacture of sections При изготовлении секций	butt Стыковое	0	0,40	0	0,10	—	—	—	—	0	0,[illegible]
	На стапеле Dockyard	butt Стыковое	0	0,25	0	0,14	0	0,18	0	0,[illegible]	0	1,44
Итого Total	Manufacture of sections При изготовлении секций	T Тавровое	1,[illegible]	10,00	0,[illegible]	1,15	2,[illegible]	0,22	20,9	1,4	[illegible],9	12,[illegible]
		butt Стыковое	0	3,[illegible]	0,1	0,[illegible]	0,13	0,15	10,[illegible]	0,6	10,[illegible]	4,[illegible]
	Dockyard На стапеле	T Тавровое	0,11	3,16	0,[illegible]	1,2	0,12	0,71	2,34	2,[illegible]	2,[illegible]	7,[illegible]
		butt Стыковое	0,08	1,[illegible]	0,[illegible]	0,[illegible]	0,[illegible]	0,[illegible]	2,24	4,53	2,38	7,38
	Total per ship Итого по судну		2,[illegible]	18,18	1,01	3,[illegible]	2,[illegible]	1,8	81,04	9,[illegible]	67,5	32,5

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ACCESSION NR: AP4012185 S/0191/64/000/002/0017/0019

AUTHORS: Omel'chenko, S. I.; Sorokin, V. P.; Tkachuk, B. M.;
Beletskaya, T. V.; Zubkova, Z. A.; Piotrkovskaya, V. G.;
Safonov, A. I.

TITLE: Unsaturated polyglycol maleinate resins modified by anthracene

SOURCE: Plasticheskiye massy*, no. 2, 1964, 17-19

TOPIC TAGS: unsaturated polyglycol maleinate resin, anthracene, unsaturated polyester resin, glass-reinforced plastic, maleic anhydride, contact method, filler, binder, heat resistance

ABSTRACT: Effort directed toward broadening the raw material base for synthesis of unsaturated polyester resins is acquiring great value in connection with the expansion of glass-reinforced plastic production. Unsaturated polyester resins were synthesized by two methods: (1) joint polycondensation of maleic anhydride with additive of anthracene and glycol (ethylene glycol or diethylene glycol). (2) introduction of anthracene during condensation polymerization of glycols and maleic anhydride. Two problems were simultaneously

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ACCESSION NR: AP4012185

solved: obtaining unsaturated polyester bonds with improved properties and the expansion of the raw material base for their production. Optimum conditions for the process were studied and it was established that stable resins can be obtained by synthesis in one stage (22-23 hrs.) and in a two-stage process (16-27 hrs.). Glass-reinforced plastic was prepared on the basis of resins derived by the contact method; glass cloth of brand T and ACTT (b) C_2 with paraffin lubricant were used as filler. Physical-mechanical testing indicates that the resins modified by additive or anthracene can be used as binders. Glass-reinforced plastic based on resin of certain brands (PNA-D-2, PNAD-E-3, PNAD-2.5) possess increased heat resistance and the best physical-mechanical properties.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: CH, MA NR REF SOV: 001 OTHER: 003

SAFONOV, A.I.; PRIBYLOVSKIY, L.A.; SAMSONOV, V.G.

Lining of the inner surface of pipes in the electrostatic field.
Plast. massy no.8:56-59 '65. (MIRA 18:9)

L 08538-67 EWT(m)/EWP(w)/EWP(v)/EWP(t)/ETI/EWP(k) IJP(c) JD/HM/HW/EM

ACC NR: AP6034765 (N) SOURCE CODE: UR/0407/66/000/001/0062/0066

AUTHOR: Kazakov, N. F. (Nikolayev); Kvasnitskiy, V. F.; Safonov, A. I.; Yermolayev, G. V.

52
49
B

ORG: none

4 18 21

TITLE: Vacuum-diffusion bonding of the surfaces of EI602 nickel-base heat-resistant alloy 4

SOURCE: Elektronnaya obrabotka materialov, no. 1, 1966, 62-66

TOPIC TAGS: nickel base alloy, high temperature alloy, diffusion welding, alloy diffusion welding, alloy vacuum welding, vacuum welding technology/EI602 alloy

ABSTRACT: Experiments have been made to determine the optimum conditions for vacuum diffusion bonding of the surfaces of EI602 nickel-base heat-resistant alloy. The bonding was done at 1373, 1423, 1448 and 1473K under a specific pressure of 1.0, 1.5, 2.0, 2.5, 3.0 and 3.5 kg/mm^2. The machined specimens were annealed in a vacuum of 10^{-4} tor. ($1.3 \cdot 10^{-2}$ n/m^2) at the bonding temperature for 3 min, pressed and held together for 6 min under a given pressure and then air cooled. The best results were obtained at bonding temperatures of 1423—1448K under a specific pressure of 2.5—3.0 kg/mm^2, a holding time of 6 min, and a vacuum of not less than 10^{-4} tor. The better the faying surface finish and the shorter the time between their machining and bonding, the higher was the bond strength. The bonds made under optimum conditions

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L 08538-67

ACC NR: AP6034765

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had a tensile strength of 72.0—76.2 kg/mm^2 and an elongation of 37.3—45.6% at room temperature; the corresponding figures at 1073K were 35 kg/mm^2 and 27%. All these indices corresponded or were close to those for the base metal. Diffusion bonding with intermediate nonmelting nickel inserts 0.1 mm thick was done at 1423K with a holding time of 6 min. The tensile strength of these bonds was 80% of the strength of the base metal at room temperature and 100% at 1073K. Annealing for 8 hr at the normal operating temperature of EI602 alloy (800C) did not affect the tensile strength and ductility of the joints. But the stress-rupture strength was appreciably lower than that of the joints without inserts. The mechanical properties of the joints with nickel inserts can be increased by decreasing the insert thickness. Thin melting foil and electrolytically or vacuum-evaporated intermediate films can be used to ensure satisfactory contact in low-pressure (about 1.0 kg/mm^2) diffusion bonding of thin-sheet structures. Orig. art. has: 6 figures.

SUB CODE: 13/ 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS: 5103

Card 2/2

FOLOMIN, A.I., doktor tekhn.nauk; SAFONOV, A.M., inzh.

New trends in the practice of roofing industrial buildings. Prom. stroi. 41 no.3:45-47 Mr '64. (MIRA 17:3)

SAFONOV4A8M8 600

1. MEDER, V. A., SAFONOV, A. M.

2. USSR (600)

4. Concrete Construction

7. Device for placing concrete; concrete dipper M. S. Biul. stroi. tekh. 9, No. 8, 1952. Stroitel'no-Montazhnyy Trest Leskhimpromstroy

9. Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

POPOV, N.A., doktor tekhn. nauk; SAFONOV, A.M., inzh.

Operational properties of new roofing materials. Stroi. mat. 9 no.5:25-27 My '63. (MIRA 16:7)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Popov).

(Roofing--Testing)

SAFONOV, A.N. (Yaroslavl')

Exercises containing symbols of absolute values. Mat. v shkole no.2:37-40 Mr-Ap '56. (MLRA 9:6)
(Mathematics--Problems, exercices, etc.)

L 05392-67 IJP(c)

ACC NR: AT6031503 SOURCE CODE: BU/2503/66/014/000/0005/0019

AUTHOR: Danilov, V. I.; Enchevich, I. B.; Marchenko, B. N.; Polferov, E. A.; Safonov, A. N.; Shestov, A. V.

47
42
B+1

ORG: none

19

TITLE: Increasing the internal beam current of the synchrocyclotron of the Joint Institute for Nuclear Research by additional electrostatic focusing

SOURCE: Bulgarska akademiya na naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB, v. 14, 1966, 5-19

TOPIC TAGS: synchrocyclotron, electrostatic field, electrode, duant, accelerator, rectifier, proton current

ABSTRACT: A description is given of the effects of an electrostatic field in the central region in the synchrocyclotron of the Joint Institute of Nuclear Research upon the accelerated proton current. As a result of theoretical and experimental research, the chosen aperture of the focusing electrode is equal to the aperture of the dee. In view of the need for a stable installation for long periods of work, 30-mm gaps were established between the screens and the electrodes and a 170-mm

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L 05392-67

ACC NR: AT6031503

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distance was established between the dee and the electrodes. In such conditions the maximum current magnitude attained is U_Φ = 13 kilovolts. As a result of the increase of focusing forces in the central region of the accelerator, the beam current on the finite radius increased from 1.1—1.2 to 2.1—2.3 μA . In conclusion, the authors thank senior technicians V. I. Ivanov and Yu. V. Maksimov for the production of the 30-kv rectifier; designer I. Kh. Nozdrin and K. A. Baycher, director of the machine shops of the Laboratory of Nuclear Problems, for their efforts in the development and production of the focusing installation, and G. I. Selivanov, chief engineer of the Laboratory of Nuclear Problems. Orig. art. has: 16 figures.

SUB CODE: 20, 09/ SUBM DATE: none/ ORIG REF: 003/

Card 2/2

SAFONOV, A.N.

Methods of summation of series equivalent to S.N. Bernshtein's methods. Uch. zap. IAr. gos. ped. inst. no.34:183-190 '60. (MIRA 15:9)

(Series)

SAFONOV, A.N.

Absolute convergence of series. Uch. zap. IAr. gos. ped. inst. no.34:193-197 '60. (MIRA 15:9)
(Series)

DANILOV, V.I.; YENCHEVICH, I.B.; ZAMOLODCHIKOV, B.I.; MARCHENKO, B.N.; NOVIKOV, D.L.; POLFEROV, E.A.; ROZANOV, Ye.I.; SAVENKOV, A.L.; SAFONOV, A.N.

Increase in intensity of a proton beam in a six-meter synchro-cyclotron of the United Institute of Nuclear Research. Atom. energ. 16 no.1:9-11 Ja '64. (MIRA 17:2)

15

L 58861-65 EPA(w)-2/EWT(m)/EWA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007940 S/0000/64/000/000/0591/0594 35 34

AUTHOR: Danilov, V. I.; Yenchevich, I. B.; Zamolodchikov, B. I.; Marchenko, B. N.; Novikov, D. L.; Polferov, E. A.; Rozanov, Ye. I.; Savenkov, A. L.; Safonov, A. N.; Shestov, A. V.

TITLE: Increasing the internal beam current of the OIYaI synchrocyclotron to 680-Mev

19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 591-594

TOPIC TAGS: synchrocyclotron, high energy accelerator

ABSTRACT: The Laboratory of Nuclear Problems of OIYaI modified the synchrocyclotron to increase the intensity of the internal beam, with the work being conducted in two directions: (a) obtaining a high-frequency program in the synchrocyclotron such that the current at the terminal radius of the accelerator would be a maximum; and (b) creating a focusing system that compensates for the defocusing action of the spatial charge at the center of the accelerator and thus increases the mean current of accelerated protons. The phase motion in the synchrocyclotron is analyzed in

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ACCESSION NR: AT5007940

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two principal stages: first, the capture of the particles at the center of the synchrocyclotron during the accelerating regime; and second, their phase motion during the acceleration process up to the terminal radius. The equations of D. Bohm and L. Foldy (*Phys. rev.*, 72, 649 (1947)) are insufficient for the solution of the problem of the optimum capture of charged particles in the accelerating regime in synchrocyclotrons of several hundred Mev. This is explained by the fact that the growth in energy per revolution in the first stage for a constant accelerating potential (U_0=const.) depends upon the radius of the orbit. The curve describing the relative growth of proton energy per revolution as a function of radius was calculated by means of pictures of the dee potential field which were obtained from a model of the central region of the OIYaI synchrocyclotron in an electrolytic tank. Experimental measurements of the current at the radius R=30 cm determined the magnitude of $\dot{\omega}_{s\ \mathrm{init}}$ (growth of the circular frequency in units of radians per second^2) that ensures optimum capture conditions. Choice of this radius necessitates excluding the influence of variations in the phase conditions during proton acceleration in the region of the middle and terminal radii. The magnitude of $\dot{\omega}_{s\ \mathrm{init}}$ varied over a wide range with variation of the magnetic field strength at the center of the accelerator. For voltage at the dee of U_0=12 kilovolts and for existing geom-

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ACCESSION NR: AT5007940

etry of the accelerating gap, the dependence of the intensity (capture effectiveness) upon $\dot{\omega}_{s\ init}$ for the OIYaI synchrocyclotron showed the optimum value to be 2.25x 10^{10} rad/sec^2 (B.I. Zamolodchikov, et al. Preprint OIYaI P-720, Dubna, 1961). Correction of the parameters of the accelerator's resonance system in January 1961 led to a frequency program with the indicated value of $\dot{\omega}_{s\ init}$ at the beginning of acceleration, which led in turn to increasing the internal beam from 0.3 to 0.8 microamperes at the terminal radius R=274.5 cm. The proton current was measured by means of the induced activity of an aluminum target, according to the reaction $Al^{27}(p,3pn)Na^{24}$, obtained at radii R=270 to 280 cm. A target with a lead backing was calibrated against a beam of protons, extracted from the synchrocyclotron chamber, by means of a Faraday cylinder. The second stage of the work consisted in creating high-frequency characteristics of the synchrocyclotron $\omega_s=\omega_s(t)$ and $U_0=U_0(\omega_s)$ such that they ensure simultaneously the optimum conditions for the capture of the ions and their subsequent acceleration up to the terminal radius without phase loss. During selection of the frequency program of the synchrocyclotron consideration was taken of the damping of phase oscillations during the process of proton acceleration up to the terminal radius of the accelerator. Use was made of the invariance of the integral of action J during the adiabatic variations of the system's parameters.

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L 58861-65 O

ACCESSION NR: AT5007940

Further increase in the intensity of the synchrocyclotron was reached by introduction of additional vertical (axial) focusing of the accelerated ion beam in the central region of the accelerator. Investigations of the focusing systems demonstrated the advantage of electrostatic focusing over magnetic focusing at the center of the accelerator. The system of focusing electrodes used in the OIYaI synchrocyclotron was constructed with the possibility of regulating the gap between the dee and supplementary electrodes. Moreover, the configuration of the electric field can be varied by regulation of the arrangement of the grounded screen placed between the dee and the potential electrodes. The Hill equation can describe the motion of the ions in the accelerator's magnetic field and in the electrostatic field created by the supplementary electrodes. The optimum arrangement of the electrodes of the focusing installation was found by experimental study of the properties of the system according to the dependence of the beam current upon U_f (focusing voltage in kilovolts) for various distances of the electrodes from the center of the accelerator. The internal beam current for the indicated conditions was approximately doubled, amounting at the present time to 2.2-2.3 microamperes. Orig. art. has: 7 figures.

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L 58861-65

ACCESSION NR: AT5007940

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP

NO REF SOV: 001 OTHER: 002

Card 5/5

1

L 58859-65 EPA(w)-2/EWT(m)/EWA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007941 S/G000/64/000/000/0595/0599

AUTHOR: Danilov, V. I.; Yenchevich, I. B.; Novikov, D. L.; Polferov, E. A.; Safonov, A. N.; Feoktistov, B. V.

31
30B+1

TITLE: Calculation in the region of the origin of the stable phase oscillations in the synchrocyclotron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 595-599

TOPIC TAGS: synchrocyclotron, high energy accelerator

ABSTRACT: The capture and acceleration of charged particles in the central region of the synchrocyclotron is not adequately described by the phase equation primarily because the maximum possible energy growth per revolution is an increasing function of the radius and approaches the slit value only at radii 5-10 times larger than the aperture of the dee. The phase motion of protons in the central region of the synchrocyclotron is now obtained by solving the equations of motion of charged particles in electric and magnetic fields of an accelerator on high-speed digital computers. Considering only the motion of charged particles in the median plane of the magnetic field possessing axial symmetry, one has the following set of differential

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L 58859-65

ACCESSION NR: AT5007941

equations (S. P. Lomnev and G. A. Tyagunov, in *Uskoriteli*, G. A. Tyagunov, Editor, No. 2, Moscow, Atomizdat, 1960):

$$\left.\begin{aligned}\ddot{r} &= A_0(1-\beta^2)^{1/2}[A_r(1-\dot{r}^2)-A_\theta\dot{r}\alpha]+\frac{\alpha^2}{r^2},\\ \ddot{\theta} &= \frac{1}{r}\left\{A_0(1-\beta^2)^{1/2}[A_\theta(1-\alpha^2)-A_r\dot{r}\alpha]-\frac{2\alpha\dot{r}}{r}\right\},\end{aligned}\right\} \quad (1)$$

where the dot indicates differentiation with respect to *ct*, z_0 is the impedance of free space, and $A_0 = e/m_0c^2$; $\alpha = r\dot{\theta}$; $A_r = \mathscr{E}_r + \alpha Z_0 B_z$; $A_\theta = \mathscr{E}_\theta - \dot{r} Z_0 B_z$; B_z-magnetic induction; E_r, E_θ-components of the electric field strength. After a number of transformations the dependence of the electric field strength upon radius is represented in the following form

$$\mathscr{E}_r = \frac{\mathscr{E}_0 \sin\theta}{1+\frac{\pi^2}{D^2}r^2\sin^2\theta}\cos(1+\Delta)(1-\gamma\omega_0 t)\,\omega_0 t, \quad (2)$$

where

$$\Delta = \frac{\dot{\varphi}}{\omega_0};\quad \gamma = \frac{1}{2}\cdot\frac{d\omega_r}{dt}\cdot\frac{1}{\omega_0^2}; \quad (3)$$

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L 58859-65

ACCESSION NR: AT5007941

$E_0=U_0/D$; U_0-amplitude of the accelerating voltage; D-dee aperture; ω_0-frequency of revolution of an ion at the center. The present report discusses the solution of the equations of motion (1) for given boundary value conditions and parameters in the case of the OIYaI synchrocyclotron. A high-speed digital computer was used to obtain curves of (a) radius and phase versus time, (b) capture effectiveness versus gamma-coordinate for various accelerator parameters (e.g. aperture), (c) damping of amplitude of radial-phasal oscillations versus radius, and (d) regions of stability of ϕ versus ϕ (ϕ -phase). The trajectories of radial-phase oscillations were used to determine the effectiveness of capture as a function of various accelerator parameters and also the ion beam configuration during the acceleration of the ions from the center to a radius of 50 cm. Orig. art. has: 5 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP, EM

NO REF SOV: 002 OTHER: 001

Card 3/3

DANILOV, V.I.; YENCHEVICH, I.B.; NOVIKOV, D.L.; POLFEROV, E.A.;
SAFONOV, A.N.; FEOKTISTOV, B.V.

[Calculation of the initial region of stable phase oscillations in a synchrocyclotrone] Raschet nachal'noi oblasti ustoichivykh kolebanii v sinkhrotsiklotrone. Dubna, Ob"edinennyi in-t iadernykh issl. 1963. 24 p. (MIRA 17:7)

BATALOV, V. V.; SAFONOV, A. P.

Leningrad Province--Fruit Culture.

Terrace orchard on the "Ruch'i" state farm. Sad i og. no. 8, 1952.

Monthly List of Russian Accessions. Library of Congress, October 1952. UNCLASSIFIED.

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

4c

A-1

Surface molecular phenomena in the process of formation of lithographic or offset moulds. I. Adsorption of oleic acid on calcium carbonate. S. A. Pletenev and A. P. Safonov (J. Appl. Chem. Russ., 1939, 12, 847—854).—Addition of oleic acid to $CaCO_3$ results in chemisorptive formation of an oriented unimol. film around the particles. Further addition of acid is followed by adsorptive formation of oppositely oriented secondary films. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SAFONOV, A P, SHIFRINSON, B

TEPLOFIKATSIA - PRIMERY RASCHETOV I ZADACHI (Thermification - Examples of Calculations & Problems - Textbook), 1946

SAFONOV, A.P.

PA156T25

USSR/Engineering - Heating
Power Supply

Nov 49

"Automatization of Inlets for District Heating and Power Supply," A. P. Safonov, Cand Tech Sci, 3 pp

"Elek Stants" No 11

Automatic remote control valves are being fitted in the line between the district heating main and the building heating circuit. Thirty such valves were fitted in Moscow in 1948-49 heating season and this number will be doubled in 1949-50. Discusses system used and resultant heat saving. Includes five diagrams.

156T25

[redacted]

F.A.

26. RATES OF HEAT LOSSES IN HEATING NETWORKS. Shubin, E.P. and Safonov, A.P. (Za Ekon. Topliva (Fuel Econ.), Mar. 1952, 12-17). Straight line formulae are derived for calculating heat losses from the diameter and length of hot water and steam pipes. (L).

1. SAFONOV, A. P.

2. USSR (600)

4. Heating Pipes

7. Automatic regulation of the hydraulic process of heating lines in heating networks. Rab. energ. 2 no. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

A9m

1

331-T. **Standardization of Heat Losses in Heating Systems.** (In Russian.) E. P. Shubin and A. P. Safonov. *Za Ekonomiiu Topliva*, v. 9, Mar. 1952, p. 12-17.

A mathematical discussion. (T5)

SAFONOV A. P.

SAFONOV, ALEKSANDR PETROVICH

SOKOLOV, Yefim Yakovlevich, professor, redaktor; GROMOV, Nikolay Konstantinovich; SAFONOV, Aleksandr Petrovich; PAKSHVER, V.B., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[Operation of heating systems] Ekspluatatsiia teplovykh setei. Pod red. E. Ia. Sokolova. Moskva, Gos.energ.izd-vo, 1955. 352 p. (MLRA 9:1)
(Heating)

SAFONOV, Aleksandr Petrovich; BORISOV, B., redaktor; VORONIN, K.P.,
tekhnicheskiy redaktor

[Heating system problems] Zadachnik po teplovym setiam. Moskva,
Gos. energ. izd-vo, 1956. 191 p. (MLRA 9:9)
(Heat engineering)

SOKOLOV, Yefim Yakovlevich, professor; SAFONOV, A.P. , redaktor; SKVORTSOV,
I.M., tekhnicheskiy redaktor

[District heating systems] Teplovye seti. Izd. 2-oe, perer. Moskva,
Gos.energ. izd-vo, 1956. 236 p. (MLRA 9:11)
(Heating from central stations)

SOV/112-59-1-349

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, pp 47-48 (USSR)

AUTHOR: Safonov, ~~A. P.~~

TITLE: Operating Experience With Heat-Line Designs Used in the Mosenergo Heating System

PERIODICAL: Tr. Nauchno-tekhn. soveshchaniya po proyektir. i str-vu teplovykh setey. M.-L., Gosenergoizdat, 1956, pp 170-180

ABSTRACT: By the end of 1953 in Moscow, 88.3% of total piping length was laid in small (no passageway) tunnels. Route lengths for various laying types are reported. During the initial period of network construction, a vault-type reinforced-concrete tunnel with suspension-type insulation was used; later on, a brick tunnel with reinforced-concrete slabs. Since 1948, heat piping in straight-line sections has been adopted in the form of reinforced-concrete unit-type half-cylinders insulated with rockwool. A further development of this type

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SOV/112-59-1-349

Operating Experience With Heat-Line Designs Used in the Mosenergo Heating . . . .

has led to the VTI-Mosenergo line with a reinforced-concrete rockwool-insulated conduit. A construction with two coaxial asbestos-cement rockwool-filled pipes is close to the preceding one. No-conduit structures are not used in Moscow. The recommended laying methods are: reinforced-concrete half-cylinders, reinforced-concrete and asbestos-cement conduits, and built-up passageway-type and semi-passageway tunnels with suspension insulation. Low insulating ability and short life due to moistening are the principal disadvantages of heat-insulating structures. A graph of specific heat losses in the line of a hot-water network is presented; actual heat losses are higher than those calculated, which is evidence of the inadequacy of a rockwool insulator. To evaluate heat insulators, samples taken from test holes were investigated; their volumetric weight, moisture content, heat conductivity, and corrosiveness were determined. Test methods and results are reported. It is recommended that asbestos-tripoline materials, asbestos-cement slabs,

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SOV/112-59-1-349

Operating Experience With Heat-Line Designs Used in the Mosenergo Heating . . . .

and peat slabs be excluded from underground structures. Rockwool is the best insulating material. In recent times, the Mosenergo heating network has had to re-lay about 1.4 km of pipe annually because of external corrosion. Based on staged tests, a decision was reached to deprecate using Kuzbass varnish for coating. Borulin and #177 varnish showed satisfactory results under laboratory conditions; results must be verified under actual operating conditions. Results of mechanical-design investigations are reported.

M.L.Z.

Card 3/3

SKRITSKIY, Leonid Gennadiyevich, doktor tekhn.nauk; SAFONOV, A.P., dotsent., kand.tekhn.nauk, retsenzent; BEKENSHTEYN, V.A., inzh., nauchnyy red.; FEFER, Yu.B., inzh., nauchnyy red.; UDOD, V.Ya., red.izd-va; TOKER, A.M., tekhn.red.

[Automatic control for gas-heating and ventilating systems] Avtomatika v sistemakh teplo-gazosnabzheniia i ventiliatsii. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit., 1957. 175 p. (MIRA 12:10)
(Automatic control) (Gas--Heating and cooking)
(Ventilation)

AUTHOR: Safonov, A.P., Candidate of Technical Sciences.

96-7-13/25

TITLE: The selection of optimum nozzle position in the receiving chamber of water jet elevators of the ORGRES, Tsentroenergostroya and Gossantekhstroya types. (Vybor optimal'nogo polozheniya sopla v priyemnoy kamere vodostruynykh elevatorov ORGRES, Tsentroenergostroya i Gossantekhstroya.)

PERIODICAL: "Teploenergetika" (Thermal Power) 1957, Vol.4, No.7, pp. 54 - 56 (U.S.S.R.)

ABSTRACT: At the present time, at the inlets to subscribers installations on existing district heating systems, in addition to new water jet elevators of the ВТИ-Мосэнерго there is a considerable number of elevators of old design particularly ОРГРЭС with cylindrical mixing chamber and cast iron elevators of the Госсантехстроя type. These three types are illustrated by sketches. Unlike the new types the old types were designed without adequate theoretical knowledge and testing. This mainly affects the distance from the nozzle to the mixing chamber which is too small in some nozzles and

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The selection of optimum nozzle position in the receiving chamber of water het elevators of the ORGRES, Tsentroenergostroya and Gossantekhstroya types. (Cont.)

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too large in others.

To increase the efficiency of the elevators it was necessary to determine the best position for the nozzle. Using the main concepts of the theory of the free jet the All-Union Thermotechnical Institute (VTI) developed a procedure for the approximate calculation of the distance from the nozzle to the mixing chamber applicable to elevators with cylindrical mixing chamber. Formulae are given for this purpose. The values obtained from the formulae given for the different type of mixer are in satisfactory agreement with test data and the procedure described may be applied to other designs. Special tests were carried out to verify the validity of the procedure for determining the position of the outlet nozzle in old types of elevators. The results of the tests are given in Figs. 3, 4 and 5 which are characteristics of the elevators for different nozzle positions. The experimental data is in good agreement with theory; it is concluded that approximate calculations of the best

Card 2/3

The selection of optimum nozzle position in the receiving chamber of water jet elevators of the ORGRES Tsentroenergostroya and Gossantekhstroya types. (Cont.)

96-7-13/25

position of the nozzle relative to the mixing chamber using the BTI procedure, modified as necessary for elevators with a flow part of complex profile, gives results which are in satisfactory agreement with experimental data. The previously used nozzle position in all the old types of elevator was not the best. Altering the nozzle position relative to the mixing chamber can increase the efficiency of operation of old types of elevator.

There are 6 figures and 3 Slavic references.

Card 3/3

ASSOCIATION: Mosenergo.

AVAILABLE:

POLYAKOV, M.A., inzh; SAFONOV, A.P., kand. tekhn, nauk

Increasing the operating efficiency of water jet elevators. (MIRA 11:11
Elek.sta. 29 no.9:25-28 S '58.
(Heat engineering)

DYUSKIN, Valer'yan Konstantinovich; SAFONOV, Aleksandr Petrovich, dotsent, kand.tekhn.nauk, red.; VORONIN, K.P., tekhn.red.

[Quantitative and qualitative regulation of heating nets] Kolichestvenno-kachestvennoe regulirovanie teplovykh setei. Moskva, Gos.energ.izd-vo, 1959. 143 p. (MIRA 13:1)
(Heating)

SAFONOV, A.P., kand.tekhn.nauk; KRONGAUZ, V.S., inzh.

Mechanical heat meters. Teploenergetika 8 no.9:25-28 S '61.
(MIRA 14:8)

1. Teploset' Mosenergo.
(Steam meters)

L 2968-66 EWT(d)/EWP(k)/EWP(l) UR/0105/64/000/009/0091/0091
ACCESSION NR: AP5026355 15
13

AUTHOR: Bel'kind, L. D.; Venikov, V. A.; Glazunov, A. A.; Grudinskiy, P. G.; Pavlenko, V.A. Zhadin, K. P.; Zhebrovskiy, S. P.; Lapitskiy, V. I.; Neklyudov, B. K.; Soldatkina, L.A. Razevig, D. V.; Rossiyevskiy, G. I.; Safonov, A. P.; Sokolov, N. I.; Kheyster, V. A. Tayts, A. A.; Ul'yanov, S. A.; Fedoseyev, A. M.

TITLE: Professor B. A. Teleshev on this 70th birthday and the 45th anniversary of his engineering, scientific, and teaching activity

SOURCE: Elektrichestvo, no. 9, 1964, 91

TOPIC TAGS: electric engineering personnel

ABSTRACT: Boris Arkad'yevich Teleshev was seventy years old 12 March 1964. He graduated from the electromechanical department of the Petrograd Polytechnic Institute in 1917 and gained the title Electrical Engineer in 1920. In the Union of Electric Power Stations of the Moskovskiy rayon, Teleshev was one of the founders of the first dispatcher service of the Moscow Power System, the chief dispatcher of this system, the manager of the high-voltage networks of the Moscow Union, the chief engineer in construction of the Moscow high-voltage network and of the high-voltage networks of the

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Moskovskiy rayon and the chief engineer in construction of the Bobrikovsk (now Novomoskovsk) hydroelectric station. In connection with the reorganization of construction in 1931, Teleshev was transferred to Energostroy, first as chief engineer of the Moscow division and then as deputy chief of the design administration of Energostroy (now Teploelektroproyekt). In 1934, Teleshev took the post of assistant director of the Scientific Section of the Power Engineering Institute imeni Krzhizhanovskiy of the Academy of Sciences USSR and worked as the immediate assistant to Academician G. M. Krzhizhanovskiy in directing the Institute until 1946. Starting in 1923, he did scientific research work first at the Moscow Institute of Mechanics im. Lomonosov and then at the Institute of National Economy im. Plekhanov. After the founding of the Moscow Power Engineering Institute in 1930, Teleshev transferred to that Institute and worked there until 1940. Here he was Lecturer of the Department of "Central Electric Stations" and a professor in the department. He received his professorship in 1933. He was Dean of the Electric Power Department of the Institute from 1932-1935. In 1940, Teleshev was made director of the Department of Electrical Engineering of the Moscow Institute of Fine Chemical Technology where he remained until 1955. In 1944 he took part in organizing the Power Engineer-

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ACCESSION NR: AP5026355
ing Department of the Moscow Institute of Engineering Economics im. S.
Ordzhonikidze. From 1946 to the present, Teleshev has been director of
the Department of "Electric Stations and Substations" and there have been
two printings of his textbook on a course in "General Electrical Engineer-
ing." Teleshev has acted in a consultative capacity in plans for a great
number of electrical stations and networks. He participated in the Govern-
ment Consultation on the Dneper hydroelectric station im. V. I. Lenin. He
has been an active member of the Scientific and Technical Society of the
Power Industry for more than 20 years. He was chairman of the Moscow board
of the Society from 1944 to 1951. For his service to the Society, he has
been made a permanent member. In 1960 he was elected deputy in the Moscow
Council of Deputies of the Workers. He has been decorated with the Order
of Lenin, the Order of the Red Banner of Labor and with medals.
14
Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE

NR REF SOV: 000 OTHER: 000 JPRS

beh
Card 3/3

SAFONOV, A. S.

"General Electrotechnique" by A. S. Safonov (for Naval Specialists) published by the USSR Ministry of Armed Forces, Moscow, 1946.

SAFONOV, A. S.

Elektrotekhnika. Uchebnik dlia organizatsii DOSAAF /Electrical engineering; textbook for organizations of the All-Union Volunteer Society for Assistance to the Army, Air Force, and Navy/. 1953. 430 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 8 November 1953

GRECHISHCHEV, Ye.S., inzh.; SAFONOV, A.S.

Testing the strength of the conical fit. Trudy VNITI no.16: 42-49 '62. (MIRA 17:1)

SAFONOV, ~~Aleksandr Sergeyevich~~, dots., kand.tekhn.nauk; FEDOROV,
A.V., red.; SOLOMONIK, R.L., tekhn. red.

[Principles of electrical engineering] Osnovy elektrotekhniki.
Moskva, Voenizdat, 1961. 549 p. (MIRA 15:7)
(Electric engineering) (Electricity on ships)

SAFONOV, A.V.

Rare case of salmonellosis due to food. Zhur.mikrobiol.epid.i immun. 31 no.1:148-149 Ja '60. (MIRA 13:5)
(SALMONELLA)

MIKHALKEVICH, M.F., glav. red.; SAFONOV, A.V., red.; KRINSKIY, L.I., red.; BROUN, R.M., red.; BOMBELO, I.A., red.; ERNST, V.P., red.; BRIZHAK, B.Ye., red.; RYZHKOV, A.N., red.; MEMESHKINA, L.I., tekhn. red.

[The nature of Sakhalin and man's health]Priroda Sakhalina i zdorov'e cheloveka; sbornik statei. IUzhno-Sakhalinsk, Sakhalinskoe knizhnoe izd-vo, 1962. 181 p. (MIRA 15:11)

1. Geograficheskoye obshchestvo SSSR. Komissiya meditsinskoy geografii Sakhalinskogo otdela.
(SAKHALIN—MEDICAL GEOGRAPHY)

SAFONOV, A.V., polkovnik meditsinskoy sluzhby; MANTURO, A.A., mayor meditsinskoy sluzhby.

Clinicoepidemiological characteristics of an outbreak of the Coxsackie disease. Voen.-med. zhur. no. 1:64-66 Ja '66
(MIRA 19:2)

KRYUKOV, V.P., inzh.; SAFONOV, A.Ye., inzh.; Prinimal uchastiye:
PODOYNITSYN, B.A., inzh.

Automatic control of the alkalinity of pulp in flotation.
Izv. vys. ucheb. zav.; gor. zhur. no.6:136-140 '61.
(MIRA 16:7)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta mekhanicheskoy obrabotki poleznykh iskopayemykh. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov Sverdlovskogo gornogo instituta.
(Krasnoural'sk—Flotation)
(Automatic control)

KRYUKOV, V.P., inzh.; PODOYNITSYN, B.A.; SAFONOV, A.Ye.

Automatic regulation of pulp alkalinity. Mekh.i avtom.proizv. 15 no.8:35-36 Ag '61. (MIRA 14:9)
(Flotation) (Automatic control)

S/119/63/000/001/011/016
D201/D308

AUTHOR: Safonov, A.Ye.

TITLE: A high-accuracy on-off temperature controller

PERIODICAL: Priborostroyeniye, no. 1, 1963, 23

TEXT: The author describes a temperature controller developed at the automation laboratory of the 'Uralmekhanobr' Institute for the control of temperature of fluids. The instrument consists of the measuring bridge, two amplifier stages, one d.c. amplification stage with the MKY-48 (MKU-48) relay as the output load. The bridge consists of a T-8 (T-8) temperature transducer, a variable resistor for temperature setting and three fixed resistors. The operation is based on the effective change in the slope of the output valve due to the application of d.c. bias developed from the bridge unbalance. The instrument can be used for controlling the temperature of a liquid between 0 and 60°C with an accuracy of ± 0.02°C. There are 2 figures.

Card 1/1

KRYUKOV, V.P., kand.tekhn.nauk; SAFONOV, A.Ye., inzh.; PAKULIN, A.A., inzh.; SAMOYLOV, G.F.

Transducers in the equipment for determining the content of iron. Izv.vys.ucheb.zav.; gor.zhur. 7 no.2:156-159 '64. (MIRA 17:3)

1. Ural'skiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki poleznykh iskopayemykh. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov Sverdlovskogo gornogo instituta.

ANTONOV, A.; SAFONOV, B.

Center for the exchange of advanced practices. Avt.transp. 39 no.6:9-10 Je '61. (MIRA 14:7)
(Lugansk Province--Highway transport workers)

MIZIN, V.G., inzh.; SAFONOV, B.P., inzh.; SEROV, G.V., inzh.; KOROBEYNIKOV,
V.V., inzh.; FISHMAN, B.D., inzh.; STRAKHOV, V.M., inzh. NIKITIN, Yu.K.

Production of 75% ferrosilicon with coke from a charge with an increased content of gas coal. Stal' 25 no.2:133-135 F '65. (MIRA 18:3)

1. Kuznetskiy zavod ferrosplavov i Kuznetskiy filial Vostochnogo nauchno-issledovatel'skogo uglekhimicheskogo instituta.

SAFONOV, D.R.

Students' work in the conservation of nature. Biol. v shkole no.4:80 Jl-Ag '61. (MIRA 14:7)

1. Direktor sredney zheleznodorozhnoy shkoly No.11 stantsii Rzhava Yuzhnoy zheleznoy dorogi.
(Rzhava--Student activities)

SAFONOV, D. S.

SAFONOV, D. S.: "Experimental-clinical and electrocardiographic principles as applied to veterinary use of a new cardiac drug--Kharg." Omsk State Veterinary Inst, Min Higher Education USSR. Omsk, 1956. (Dissertation for the Degree of Candidate in Veterinary Science).

So: Knizhnaya letopis', No. 37, 1956. Moscow.

SAFONOV, G.

Every sixth one is an efficiency promoter. Zhil.-kom.khoz. 11 no.5:11-12 My '61. (MIRA 14:7)

1. Zaveduyushchiy tekhnicheskim kabinetom "Bryanskgorgaz", Bryansk.
(Bryansk—Gas distribution—Technological innovations)

KOROVIN, V.I.; BEYLINSON, M.M.; KAZANTSEVA, I.V.; KACHALOV, D.A.;
SAFONOV, G.A.

Relation between water runoff, atmospheric pressure, temperature, and deficient humidity. Trudy Kaz.NIGMI no.16:20-24 '61.
(MIRA 15:5)

(Meteorology) (Bugun' Valley--Runoff)

SAFONOV, G.A.

Characteristics of the improvement of dark chestnut calcareous soils along the Irtysh-Karaganda Canal. Izv. AN Kazakh. SSR. Ser. biol. nauk 3 no.6:3-12 N-D '65. (MIRA 18:12)

MIKHAYLOVSKIY, Yevgeniy Vasil'yevich; SAFONOV, Georgiy Anatol'yevich;
SEREBRYAKOV, Kirill Borisovich; TARASOVA, K.A., red.;
YUNISOVA, M.I., tekhn. red.

[Motor-vehicle and tractor engines] Avtotraktornye dvigateli.
Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1963. 302 p.
(MIRA 17:4)

SAFONOV, G.A.

Clinical aspects of chronic epileptic psychoses. Trudy Vor. med. inst. 51:151-157 '63.

Treatment of epileptics with aminazine combined with luminal. Ibid.:158-160 (MIRA 18:10)

1. Voronezhskaya oblastnaya psikhonevrologicheskaya bol'nitsa (nauchnyy rukovoditel' - prof. G.I.Plesso).

DZAGUROV, S.G.; SAFONOV, G.A.; IVANOVA, G.A.; SHMELEVA, G.A.

Use of Russian agar for the preparation of poliomyelitis virus plagues (colonies). Vop.virus. 6 no.5:632-634 S-O '60. (MIRA 14:7)

1. Institut po izucheniyu poliomyelita AMN SSSR, Moskva.
(POLIOMYELITIS) (AGAR)

IVANOVA, G.A.; SAFONOV, G.A.; SYURIN, V.N.

Immunobiological differences between the viruses of classical avian plague and Newcastle disease. Veterinariia 40 no.5:39-42 My '63. (MIRA 17:1)

SAFONOV, G.A.; IVANOVA, G.A.; SYURIN, V.N.

Comparative study of the antigenic properties of the virus strain of the classical plague and Newcastle disease of birds. Veterinariia 41 no.3:13-17 Mr '64. (MIRA 18:1)

IVANOVA, G.A.; SAFONOV, G.A.; SYURIN, V.N.; BELOVA, N.A.

Comparative pathogenic properties of the viruses of the classic fowl plague and Newcastle disease. Veterinariia 41 no.3:21-25 Mr '65. (MIRA 18:4)

L 18720-66 EWT(1)/T JK

ACC NR: AP5023728 (A) SOURCE CODE: UR/0346/65/000/008/0017/0020

AUTHOR: Ivanova, G. A.; Safonov, G. A.; Kolosov, V. M.; Syurin, V. N.

ORG: All Union Scientific Research Institute of Veterinary Virusology and Microbiology (Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy virusologii i mikrobiologii)

TITLE: Differential diagnosis of New Castle disease (pseudoplague) and classical fowl plague 6,44,55

SOURCE: Veterinariya, no. 8, 1965, 17-20

25

B

TOPIC TAGS: fowl plague, animal disease, virus

ABSTRACT: New Castle disease and plague in chickens, turkeys and guinea hens are commonly considered to be the same disease because their clinical symptoms are similar. However, the viruses of these two diseases are completely different in their immunobiological, antigenic, pathogenic, hemagglutinative, and enzyme properties. The paper discusses laboratory diagnostic tests for differentiating the two diseases including cross-reaction immunity test, hemagglutination inhibition tests and neutralization tests. Also, methods of isolating the viruses and methods of determining their pathogenic and hemagglutina-

Card 1/2 UDC: None

2

L 18720-66

ACC NR: AP5023728

0

tive properties physically (heat and photodynamics), chemically (formaldehyde and nitric acid), and biologically (inhibitors) are discussed. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 002

Card 2/2 SMW

MAROKOV, I. M.

410

Planouoye obesrocheniye zarasnymi chastyami. (Iz opyha raboty kurouskogo (Melonzheuogo) kombinato).(M., 1954). 12 s. s chev. 20 sm. (M-vo prom. Touarou shirokogo potrebleniya SSSR. Tekhn. upr. Otd. Tekhn. Informatsii. Obmen peredouym opytom). 3.000 ekz. Bespl.--Sast. ukazan v kontse- Teksta. -- Bez Tir. c. i obl.--(54-54658) p 677.21:658.71 sr.

SO: Knizhanaya, Letopis, Vol. 1, 1955

SAFONOV, G.P.

Improvement of labor protection is an important task of industrial managers and trade-union leaders. Mashinostroitel' no.9:1-3 S '65. (MIRA 18:12)

1. Predsedatel' TSentral'nogo komiteta professional'nogo soyuza rabochikh mashinostroyeniya.

L 40732-65 EWT(l)/EWT(m)/EPF(c)/EWP(j)/EWA(c) Pc-4/Pr-4/Pi-4 IJP(c)
RM

ACCESSION NR: AP5012398 UR/0020/64/157/006/1451/1454

AUTHOR: Safonov, G. P.; Shlyapintokh, V. Ya.; Entelis, S. G.

TITLE: Crystalloluminescence 21 and its use in studying kinetics of amino acylation

SOURCE: AN SSSR. Doklady, v. 157, no. 6, 1964, 1451-1454

TOPIC TAGS: crystal chemistry, luminescent crystal, luminescence, acylation, amine, chloride, chemical kinetics

Abstract: Reactions of condensation and polycondensation have been recently found to be accompanied by luminescence. In searching for new methods of studying the kinetics of these reactions, the authors investigated luminescence in its relationship with the mechanism and kinetics of the reactions of acid chlorides with amines. The reaction of aniline acylation by benzene chloride was selected as the model. The reaction was carried out in diethyl ether. Luminescence was measured with a photometric instrument fitted with the FEU-33 photo-multiplier (region of spectral sensitivity 350-610 millimicrons). The maximum sensitivity of the equipment is 20-40 photons per second at the photo-cathode surface. The results confirm the validity of the hypothesis that luminescence in this reaction arises in the crystallisation of the poorly soluble product. Usually, the use of luminescent methods of studying kinetics is based

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on a proportional dependence between luminescence intensity. However, in reactions where accumulations of a precipitate attenuating luminescence intensity takes place, use of intensity measurements to determine kinetic parameters is not successful. The method described in this paper does not require luminescence intensity measurements, and changes in transmittance of the solution does not hamper its use. It was possible to photometrically measure the kinetics of the reaction which in itself was not accompanied by luminescence. Luminescence develops in the ancillary physical process of crystallization. Kinetic information is obtained by measuring the interval of time from the onset of the reaction to the moment of luminescence. Luminescence indicates that a certain concentration of the above products has been obtained in the system. Luminescence in the formation of molecular crystals has been found in this report, not only in the crystallization of benzanilide, but also in the formation of crystals of the p-iodamide of benzoic acid, eosin, uranine, and 9, 10-dibromoanthracene. Orig. art. has 1 figure, 5 formulas, 3 graphs, and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 01Apr64 ENCL: 00 SUB CODE: SS, GC

NO REF SOV: 003 OTHER: 002 JPRS

Card 2/2

1. SAFONOV, I.

2. USSR (600)

4. Sheep

7. Our experience in raising the productivity of fine-wool sheep. Kolkh. proiz. 12 no. 12, 1952.

99. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

YERSHOV, A., kapitan; SAFONOV, I., kapitan

Toward new achievements. Komm.Vooruzh.Sil 1 no.4:45-46 F '61. (MIRA 14:8)

(Radio, Military)

SAFONOV418 600

1. SAFONOV, I., POKRASS, L.

2. USSR (600)

4. Pumping Stations

7. Building a pumping station. Biul. stroi. tekh. 9, No. 7, 1952. Inzh.; KSMU Glavkhimpromstroya

9. Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

VLASOV, A.Ya.; SAFONOV, V.A.; SAFONOV, I.A.

Temperature dependence of the magnetostriction of nickel-copper alloys. Izv.Sib.otd.AN SSSR no.2:15-18 '59. (MIRA 12:7)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.
(Nickel-copper alloys) (Magnetostriction)

POPEREKA, M.Ya.; VTYURIN, N.I.; ZAKHAROVA, V.A.; AVRAMENKO, O.I.;
SAFONOV, I.A.

Internal stresses in galvanizing coatings. Zhur. fiz. khim. 39
no.2:527-530 F '65. (MIRA 18:4)

1. Krasnoyarskiy politekhnicheskiy institut.

ACC NR: AP6026320 (A) SOURCE CODE: UR/0407/65/000/003/0045/0049

AUTHOR: Petrov, Yu. N. (Kishinev); Dekhtyar', L. I. (Kishinev); Safronov, I. I. (Kishinev); Beznosov, A. Ya. (Kishinev)

ORG: none

TITLE: Effect of working conditions of mechanized electrospark hardening on the resulting surface quality

SOURCE: Elektronnaya obrabotka materialov, no. 3, 1965, 45-49

TOPIC TAGS: electrospark hardening, steel, surface hardening

ABSTRACT: The results are reported of an experimental study of the effect of electrode-feed rate, work-piece rpm, number of passes, and electric system parameters upon the hardness and roughness of surface and work-piece size variation. In the experimental machine (see figure), piece 1 held by centers 2 is driven by d-c motor 4 through reducer 3. Electromagnetic vibrator 5 is axially moved by lead screw 6 driven by wormgear 7 and d-c motor 8. The work-piece

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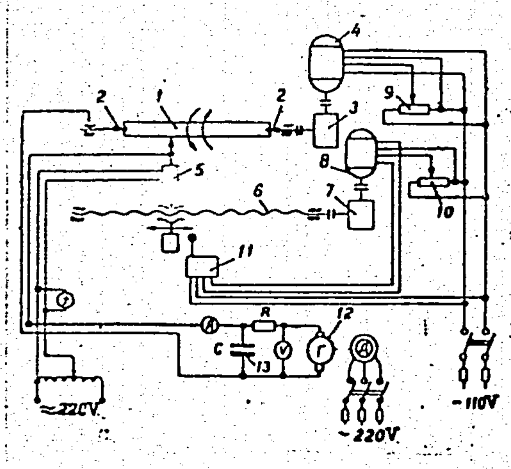
ACC NR: AP6026320



rpms are controlled by potentiometer 10. The vibrator travel is reversed by switch 11. Generator 12 and capacitor bank 13 supply the discharge circuit. Cylindrical pieces made from normalized steel-45 were experimentally hardened by T15K6 electrodes. It was found that: (1) The number of passes (1—4) and the working current (2.5—10 amp) have the greatest effect on the surface hardness and piece-size augmentation; the piece rpm and electrode-feed rate have a relatively small influence; (2) The surface roughness only very slightly depends on the above factors. Orig. art. has: 6 figures.

SUB CODE: 13, 11 / SUBM DATE: none / ORIG REF: 007

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L 26679-66 EWT(d)/FSS-2

ACC NR: AP6006317 SOURCE CODE: UR/0413/66/000/002/0039/0040

AUTHORS: Danilov, B. S.; Safonov, I. K.

62
B

ORG: none

TITLE: A device for reducing the distortions of the shape of signals. 9 Class 21, No. 177929 [announced by Central Scientific Research Institute of Communications of the Ministry of Communications SSSR (Tsentral'nyy nauchno-issledovatel'skiy institut svyazi ministerstva svyazi SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 39-40

TOPIC TAGS: signal shape, integrated circuit, signal distortion, RF filter, differentiating circuit, phase modulation, carrier frequency

ABSTRACT: This Author Certificate presents a device for diminishing signal distortions. The device operates in systems with phase modulation (during discrete information transmission) at a carrier frequency used as a pilot signal. It eliminates from the transmission the constant component of the signal. The design improves the signal shape. A differentiating circuit (made up of a resistance and a capacitor used as a high frequency filter) is connected to the transmission end of the channel. A trigger with a regenerator connected in series and an emitter follower are connected in parallel. This circuit is at the receiving end after the high frequency filter. In parallel to the input of this circuit is connected an

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intergrating circuit of resistances and capacitors with frequency characteristics opposite those of the differentiating circuit connected in parallel to the input of the original circuit (see Fig. 1). The time constants of the differentiating circuit and the integrating circuit are equal. Orig. art. has: 1 figure.

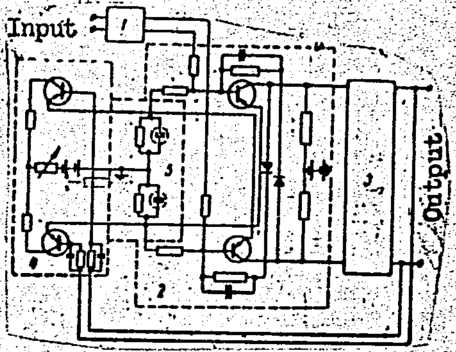

Fig. 1. 1 - high frequency filter; 2 - trigger; 3 - regenerator; 4 - emitter follower; 5 - integrating circuit.

SUB CODE: 09/ SUBM DATE: 12Feb64

SAFONOV, Ivan Stepanovich, zasluzhennyy uchitel' professional'no-tekhnicheskogo obrazovaniya RSFSR; BORISOV, U.; DEMENT'YEV, M.

Enthusiasm and exactingness; thoughts about our work. Prof.-tekh. obr. 22 no.9:11-14 S '65. (MIRA 18:9)

1. Master professional'no-tekhnicheskogo uchilishcha No.3, Voronezh (for Dement'yev).